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ABSTRACT

An evaluation of the MACOS social studies curriculum program was conducted during 1969-70 in six elementary schools. Three schools were randomly chosen to participate in the MACOS program while three others served as a comparison group. Teachers of the former schools received training in the appropriate procedures for utilizing the relevant methods and materials to implement that program while teachers in the latter comparison group continued with their regular social studies program. Nineteen comparisons were made after the MACOS program had been conducted for one school year to determine how well students in the MACOS program learned material specific to that program; how well they learned those elements which are common to both the MACOS and the regular program; and how the attitudes of students and teachers were affected by participation in the MACOS program. The results indicate that the material specific to the MACOS program and the common elements of both programs learned better by those in the MACOS program. In the area of attitudes, the students in the MACOS program had a more positive view of themselves as social studies students' and teachers perceived these students as more interested in social studies. Of the 19 comparisons, seven of the differences were statistically significant, and all seven of these comparisons favored the MACOS group. (Author/SJM)

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Research Report

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AN EVALUATION OF MAN: A COURSE OF STUDY

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and

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A PUBLICATION OF THE RESEARCH OFFICE
OF THE ADMINISTRATION DIVISION
BELLEVUE PUBLIC SCHOOLS
BELLEVUE, WASHINGTON

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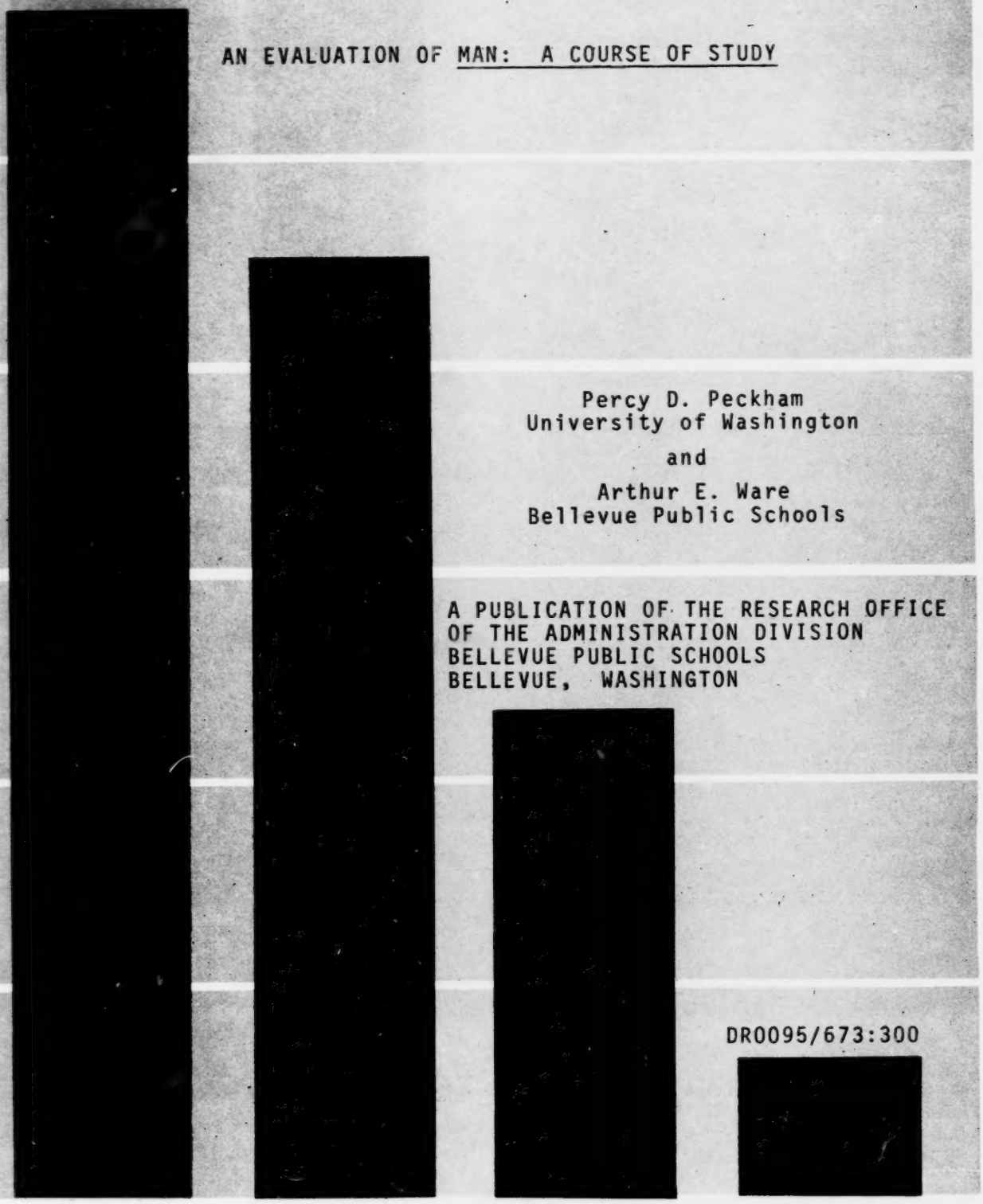

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BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
June 1973

AN EVALUATION OF MAN: A COURSE OF STUDY

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A Publication of the Research Office of the Administration Division

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ABSTRACT

An evaluation of a social studies curriculum program, Man: A Course of Study (MACOS), was conducted in the Bellevue Public Schools during the 1969-1970 school year.

Of the six elementary schools participating in the study, three were randomly chosen to participate in the MACOS program while the remaining three served as a comparison group. The teachers from sixteen fourth, fifth, and sixth grade classrooms in the MACOS program received training in the appropriate procedures for utilizing the relevant methods and materials to implement that program. The teachers from the twenty-four similar classrooms in the comparison group continued with the regular social studies program.

The comparisons in this study were made after the MACOS program had been conducted for one school year. Nineteen comparisons were made to answer three general questions: (1) How well are students in the MACOS program learning material specific to that program? (2) How well are students in the MACOS program learning those elements which are common to both the MACOS and the regular program? (3) How are the attitudes of the students and teachers affected by participation in the MACOS program?

The results indicate that there is strong evidence (as might be expected) that the material specific to the MACOS program is being learned better by those in the program. There is some evidence that common elements of both programs, as reflected on a standardized social studies test, were learned better by those in the MACOS program. (The term "some evidence" is used because the comparison nearly reached conventional significance levels). There was no evidence that there were any differences on more generalized goals having to do with making appropriate inferences.

In the area of attitudes, the students in the MACOS program had a more positive view of themselves as social studies students and a more positive perception of the way their teachers viewed them. There was no evidence that students liked social studies any better or any worse in either of the programs, or that differences in programs had any effect on their view of themselves as human beings.

When compared to teachers in the regular program, teachers in the MACOS program perceived the students as more interested in social studies and that program as affording:

...greater emphasis on the rights of man
...more opportunities for intellectual development
...increased ability to capitalize on individual student differences
...more attention to the transfer of knowledge.

There were no differences in the perception of the amount of teacher preparation time or in the measure of the teacher's self-concept when comparing the MACOS program with the regular program.

Of the nineteen comparisons made between MACOS and the comparison group, seven of the differences were statistically significant; and, all seven of these comparisons favored the MACOS group. Five of the seven comparisons were in the affective area and three of these concerned perceptions of teachers. Two of the nine significant comparisons were in the cognitive area. The remaining twelve comparisons did not favor either group strongly enough to be considered statistically reliable.

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INTRODUCTION

This report presents the results of a study of the curriculum program, Man: A Course of Study (MACOS). The purpose of this study was to obtain answers to the following questions.

1. Is the content specific to the MACOS program being learned?

2. Are the elements common to both the MACOS and regular social studies program being learned as well or better by the students in the MACOS program?

3. Are the students in the MACOS program able to make appropriate inferences, exercise appropriate caution in inferring, make appropriate discriminations and refrain from overgeneralizing?

4. Do students like the MACOS program better than the regular program?

5. Are there any effects of the MACOS program on the self-concept of the students participating in it?

6. Does participation in the MACOS program have any effect on the way teachers view social studies and themselves?

For certain outcome behaviors, secondary questions were posed concerning the relative performance of the various age levels and of the sex of the participants. These secondary questions would bear directly on the purposes of the program only if the variables of age and sex were shown to interact with the treatment. Similarly, the relative performance of males and females is of peripheral interest unless it was found that the programs had differential effects for boys and girls.

Man: A Course of Study (1968) is a program centered around three organizing questions:

What is human about human beings?

How did they get that way?

How can they be made more so?

The content of the course is man: his nature as a species, and the forces that shaped and continue to shape his humanity; namely, tool making, language, social organization, the management of man's prolonged childhood, and man's urge to explain his world.

The course developers in Curiosity, Competence, and Community (1969) describe the assumptions under which MACOS operates:

> That learning is in good measure a social process by which children and teachers can articulate and share ideas with one another;
>
> That competence over a body of knowledge will lead to increased self-confidence and comprehension of one's operating assumptions about life;
>
> That the world can be observed, conjectured about, and to some degree ordered and understood using the tools of the behavioral sciences, and that an individual life can be viewed as part of the larger flow of human existence.

Film is the primary source of data in the course. The film is in color, with natural sound and a minimum of commentary. It is used largely as a simulation for field observations. Children gather information and form questions on the basis of repeated viewings in small or large groups. Twenty-three booklets of differing styles and purposes replace the usual textbook. Some booklets supply data for various units. Others stress concepts such as adaptation, and their use spans several units. In addition, there are field notes, journals, poems, songs and stories. Games, construction exercises, and observation projects are other learning activities that permit children to work with a minimum of teacher direction in small groups and individually. The design of all materials stresses Jerome Bruner's emphasis on the three ways of obtaining knowledge--the enactive (through action), iconic (through images), and symbolic (through symbols) modes of expression.

The educational aims of the course are summarized briefly in Curiosity, Competence, and Community (1969):

> To initiate and develop in youngsters a process of question-posing (the inquiry method);
>
> To teach a research methodology where children can look for information to answer questions they have raised and use the framework developed in the course (e.g., the concept of the life cycle) and apply it to new areas;
>
> To help youngsters develop the ability to use a variety of first-hand sources as evidence from which to develop hypotheses and draw conclusions;

To conduct classroom discussions in which youngsters learn to listen to others as well as to express their own views;

To legitimize the search; that is, to give sanction and support to open-ended discussions where definitive answers to many questions are not found;

To provide youngsters with a set of workable models for analyzing the nature of the social world in which they live, the condition in which man finds himself.

Answers to the primary questions were obtained by comparing the MACOS program, described above, with the regular social studies program of the Bellevue Schools. This regular program for the fifth grade youngster consisted of a study of our country, past and present, the U.S. government and Canada. Students were encougaged to think critically about the problems in the United States and Canada and the interdependence of these two nations upon each other. As the student learned about the United States, he related it to his heritage.

The regular program for the sixth grade youngster consisted of a study of Central and South America, Africa, the Middle East, and Europe. In the program, the effects of geography, economics, and history are related to the social, civic, cultural, and educational aspects of the past with their influence on the present. Attention in the program is given to thinking critically about problems in the world and the interdependence of nations upon each other. This program is described in detail in Curriculum Helps II: A General Guide (1963).

PROCEDURE

Selection of the Instruments

First, a set of instruments was selected to operationalize the variables needed to obtain answers to the questions of the study. Table I gives the general and specific questions and the test or other instrument used to measure the behavior implied by that question. Copies of the observational instruments, which are not generally available from commercial sources, are included in the Appendices. As was indicated previously, secondary questions concerning the relative performance in the cognitive areas of age groups and sex groups were also investigated.

The MACOS test is designed to measure the degree to which students know the specific subject matter content contained in the program. It was constructed by those who developed the MACOS program and was judged by them and the investigators in this study to be a fair and accurate measure for the limited purpose for which it was intended.

The Sequential Tests of Educational Progress (STEP) are well-known nationally standardized tests which most recognized authorities judge to be a carefully constructed and normed test battery. The investigators selected it from among available batteries because, among other reasons, the content of the social studies section more closely paralleled that of the Bellevue Schools than did other available test batteries.

No suitable nationally standardized instruments were available which were specifically designed to measure the ability to make appropriate inferences. The acquisition of this important skill is a prominent objective in all curricula and in the social studies area in particular. The Taba Social Studies Inference Test was developed by a leading social studies authority to fill this gap and it has been widely used to measure certain inference skills which are not dependent upon specific content. Separate scoring scales have been devised to measure skills in (1) inference, (2) generalization, (3) caution, (4) discrimination. Two things should be emphasized concerning this test. First, it is designed to measure thinking skills rather than subject matter and, second, because it does attempt to measure more intangible, though important, skills, its reliability and validity are likely to be somewhat lower than measures which are content oriented.

The school subject preference inventory was locally constructed. Its suitability for the intended purpose rest with its straightforward approach to achieve the limited objective of placing social studies in a hierarchy of school subjects according to the students' preference for each.

Table 1

Questions and Measures in the Evaluation Program

General Questions	Specific Questions	Observation Instrument
I. Are the specific purposes of the MACOS Program being achieved?	1. Are the participants learning the MACOS factual material?	MACOS Social Studies Test
II. Are the elements common to MACOS and the regular social studies program being learned as well or better by participation in the MACOS program?	1. How well are social studies facts and concepts being learned?	Sequential Test of Educational Progress (STEP)
	2. How well are the participants able to make inferences and generalizations?	TABA Social Studies Inference Test
III. Are the attitudes of students and teachers affected by participation in the MACOS program?	1. Does participation in the MACOS program affect students' attitude toward social studies?	School Subject Preference Inventory
	2. Does participation in the MACOS program affect the self-concepts of students?	Student Self-Concept Attitude Scale
	3. What effect does the MACOS program have on teachers' opinions of social studies and related topics?	Teacher Social Studies Attitude Scale
	4. Does the MACOS program affect the self-concept of participating teachers?	Teacher Self-concept Attitude Scale

The assessment of aspects of self-esteem for students and teachers was accomplished with a locally devised instrument. The instrument utilizes the semantic differential format which has been found to be useful in a number of applications including the measurement of attitudes.

Selection of Subjects

Conditions were arranged so that the comparisons made reflected the relevant questions and were influenced as little as possible by irrelevant sources. The quality of the evidence generated was maximized in several ways. First, as has already been noted, care was taken in the selection of the tests and measures so that they reflected the important educational outcomes as nearly as possible. Second, the relevant comparisons were made between children who had received the MACOS program and those who had not (rather than a before and after comparison). The two groups (MACOS and non-MACOS) were made as comparable as possible by choosing a pool of six schools with children representing similar background variables. Further, to eliminate the possibility of some unintended bias being interjected, the three schools to receive the MACOS program were randomly chosen from the six available schools. The remaining three schools became the comparison group.

The three schools participating in the MACOS program were Spiritridge, Sunset, and Surrey Downs. Within each school, grades four, five and six were included in the study. This gave a total of 16 classrooms with approximately 350 students in the MACOS program.

The schools selected for comparison purposes were Ashwood, Lake Heights, and Ivanhoe. There were 24 non-MACOS classrooms included in the study, giving a potential comparison group of approximately 700 students.

These students exhibited the usual variability in home and personal characteristics and while the general level of social and economic indicators is above state and national averages it is fairly representative of the students in the Bellevue School District.

The random selection of schools assured that there would be no *a priori* bias due to differences in teacher ability or interest. It is recognized, however, that the assignment of schools and classrooms rather than individuals to the two groups could result in noncompatibility, such as in teachers or conditions. However, there was no evidence to suggest that this was so but it should be noted that this is one possible threat to the quality of comparisons between the MACOS and the regular program. This threat may operate in two ways; pre-existing differences may mask differences due to the program, or, on the other hand, they may result in spuriously attributing final differences to the program. Though the threat is real, it should be emphasized again, that there was no evidence to suggest that there was a difference in average student or teacher ability and, in the judgment of the investigators, the threat was minimal.

Training of Teachers

The teachers in the MACOS group were trained in the implementation of the program through a series of inservice workshops in their respective buildings by teacher trainers. These trainers, who were teachers in three MACOS schools, spent five weeks at the University of Oregon during the Summer of 1969 receiving an intensive training in the course itself, and in being agents for dissemination of the course. Upon their return they worked with the other teachers in their buildings in the implementation of the program.

The teachers in the comparison group continued with the regular school program as outlined in the guide for the Bellevue Schools. The only change in the program of the students in the comparison group was in the testing and observation necessary to make the appropriate comparisons.

Collection of Data

During the first month of the 1969-1970 school year, before students began participating in the MACOS program, all students in both groups were pretested with the STEP Social Studies Test and the TABA Social Studies Inference Test. This was done to obtain a greater measure of control in the important comparisons involving the results of these measures. The MACOS test was not administered as a pretest because of the specific nature of its content.

During the 1969-1970 school year, the students and teachers in the MACOS group used the special methods and materials, as described previously, in their regular social studies program. The amount of time spent on the program was consistent with the Bellevue Schools guidelines and did not differ systematically from that of the comparison group who followed the regular social studies program. All post measures were administered during the last month of the 1969-1970 school year. All of the measures were administered by the regular classroom teacher according to the directions provided by the test publisher or, in the case of locally devised instruments, by the developers of the measure and their assistants. The data were transcribed to punch cards for automatic processing to permit analysis of the data by standard and specially written computer programs.

RESULTS AND INTERPRETATION

In this section, each of the primary questions will be answered by comparing the average performance of the MACOS group with the average performance of the comparison group. To aid in this comparison, certain statistical procedures were selected to guard against the twin dangers which are present in all such comparisons. The first of these dangers is to assume that small differences represent real effects of a program when in fact they may be only chance or random variations in the data. The second danger is that real differences in performance which may be due to differences in program may be overlooked and disregarded. An appropriate analysis technique will reduce (though never eliminate) the risk of making either of these mistakes.

Two analysis procedures were chosen to aid in making the appropriate comparisons. The analysis of variance technique was used for those outcomes for which no pretest was available. A related technique, the analysis of covariance, was chosen to analyze the data for those characteristics which were measured both before and after the period devoted to the special program. This technique incorporates the premeasures into the analysis so that first, initial differences between groups, if any, will be accounted for and, second, the precision of the final comparison is increased--that is, the danger of failing to detect a real difference is reduced.

Each of the questions will be discussed separately, then all of the evidence will be incorporated into a summary sheet.

Question: Are the participants in the MACOS Program learning the factual material included in that program?

As indicated earlier, a first approximation of the effectiveness of a program may be obtained by examining the degree to which the material specific to that program is being learned better by the participants than by non-participants. The results of the analysis of the MACOS test are given in Table 2. The results indicate that this is indeed the case. The difference in average scores on the MACOS test is 6.3 points favoring the MACOS group. The analysis indicates that this is a highly reliable difference ($p < .01$) and is not likely to be the result of chance fluctuations in the data.

These results indicate that the specific aspects of the MACOS program are being learned and that therefore it may be profitable to continue looking for the range of the effects of the program. Of secondary interest is the predictable result that older students performed better than younger students.

Table 2
Analysis of Variance
MACOS Test

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Treatment	1745.25	1	1745.25	18.98**
Age	1796.58	3	598.86	6.51*
Sex	401.34	1	401.34	4.36*
Treatment X Age	524.17	3	174.72	1.90
Treatment X Sex	17.90	1	17.90	.19
Age X Sex	233.99	3	78.00	.85
Treatment X Age X Sex	138.79	3	46.26	.50
Error	64190.22	698	91.96	

* P $\leq$ .05
** P $\leq$ .01

Table 3

Means and Numbers for the
MACOS Test

Category	Group	Number	Mean
Treatment	MACOS	276	50.50
	Regular	438	44.69
Age	9	32	41.62
	10	204	45.17
	11	308	47.88
	12	170	47.32
Sex	Male	357	45.84
	Female	357	47.55
Total		714	46.69

Question: How well are social studies facts and concepts being learned?

General social studies facts and concepts were assessed with the social studies subtest of the standardized battery entitled Sequential Tests of Educational Progress (STEP).

The results of the analysis of these data are given in Table 4 and Table 5. In interpreting the analysis of covariance results, it should be pointed out that, in effect, the differences being tested are the differences in adjusted means. These means are adjusted in the sense that they are increased or decreased by an amount which depends, in part, on the relative positions of the groups on the pretest. Thus, a group which begins at a lower level would have their posttest mean score adjusted upward to reflect the initial difference. In one sense then, the analysis of covariance is testing the significance of the growth from the pretest to the posttest.

Examination of the pretest means will indicate how similar or different the groups were initially. The unadjusted means indicate performance at the end of the year, without any adjustment for differences on the pretest; and inspection of the adjusted means indicates performance differences when groups are statistically equated initially.

The value of F for treatment differences is 3.36. The critical value of F at the .05 percent level of significance is 3.8. The difference between these values is small, giving us some evidence that the MACOS Program was more effective than the regular program. Therefore, only a tentative answer can be given to the question above--that there is some evidence to indicate that in the broader area of social studies facts and concepts, the MACOS program promotes more learning than the regular program.

The analysis for secondary questions indicates that, when adjusted for initial differences, there was no significant effect of age or sex. Nor was there any evidence that there were any differential effects of treatment for any of the subgroups within the age or sex categories.

Table 4

Analysis of Covariance

STEP Social Studies

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Treatment	540.80	1	540.80	3.36*
Age	331.44	3	110.48	.69
Sex	.00	1	.00	.00
Treatment X Age	212.53	3	70.84	.44
Treatment X Sex	378.88	1	378.88	2.35
Age X Sex	158.71	3	52.90	.33
Treatment X Age X Sex	973.92	3	324.64	2.01
Error	112332.90	697	161.17	

$.05 < P < .10$

Table 5

Unadjusted and Adjusted Means and Numbers

STEP Social Studies

Category	Group	Number	Pretest Mean	Posttest Mean Unadjusted	Posttest Mean Adjusted
Treatment	MACOS	276	46.66	49.01	49.82
	Regular	438	49.73	47.38	46.87
Age	9	32	35.25	41.44	47.17
	10	204	45.33	45.34	46.73
	11	308	50.84	49.30	48.64
	12	170	52.12	50.10	48.56
Sex	Male	357	48.53	47.85	47.86
	Female	357	48.56	48.17	48.16
Total		714	48.55	48.01	48.01

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Question: How well are the participants able to make inferences and generalizations?

The instrument used to measure this aspect of the program permitted its examination in four parts. The Taba Test of Social Studies Inference consists of separate scales for: (1) Inference, (2) Discrimination; (3) Caution; and (4) Over-generalization. The results of the analysis of scores from these scales are given in Tables 6 through 13. Examination of the F values for the treatment effect indicates that there is no evidence for the superiority of either the MACOS or the regular program. One might conclude, therefore, that the more ultimate and intangible skills are being learned as well in either program as in the other. Examination of the means for the two groups shows that all differences are small and do not consistently favor either group. This is further evidence suggesting that there are no systematic differences between comparison groups on the ability to make appropriate inferences and generalizations.

Question: Does participation in the MACOS program affect student's attitudes toward social studies?

Students were given a list of four common school subjects (language arts, arithmetic, social studies and science), and were asked to rank them in the order of their preference for each subject. The most preferred subject was to be given a rank of one and the least preferred, a rank of four.

The results and the statistical analysis of those results are given in Table 14. These results indicate that, for both groups, the mean rank of social studies is very near the middle of the range of ranks indicating that on the average, it is neither well-liked nor thoroughly disliked relative to the other subjects with which it was compared.

Inspection of the mean ranking for the MACOS and the comparison group reveals that they are nearly identical. This suggests that there is no evidence that students like social studies better (relative to the comparison subjects) in the MACOS Program than in the regular program. It should be noted that the method of measurement, though direct, simple to administer, and simple for the students to make their responses, cannot show if students in one program like all of their subjects better. It is possible, therefore, that those in the MACOS Program (or the regular program for that matter) liked all four of the subjects better. Though this is a possibility, no evidence bearing on that possibility is available from this study.

Table 6

Analysis of Covariance

Inference

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F-Ratio
Treatment	.02	1	.02	.00
Age	68.30	3	22.77	2.95
Sex	68.51	1	68.51	8.88*
Treatment X Age	.13	3	.04	.00
Treatment X Sex	17.89	1	17.89	2.32
Age	26.55	3	8.85	1.15
Treatment X Age X Sex	23.17	3	7.72	1.00
Error	5376.59	697	7.71	

* $P < .01$

Table 7

Unadjusted and Adjusted Means and Numbers

Inference

Category	Group	Number	Pretest Mean	Posttest Mean Unadjusted	Posttest Mean Adjusted
Treatment	MACOS	276	13.89	12.14	12.13
	Regular	438	13.58	12.05	12.05
Age	9	32	14.22	11.69	11.65
	10	204	13.66	11.62	11.63
	11	308	13.55	12.27	12.28
	12	170	13.93	12.36	12.35
Sex	Male	357	14.40	12.40	12.35
	Female	357	13.00	11.76	11.81
Total		714	13.70	12.08	12.08

Table 8

Analysis of Covariance

Discrimination

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Treatment	3.93	1	3.93	1.16
Age	12.55	3	4.18	1.24
Sex	6.60	1	6.60	1.95
Treatment X Age	22.41	3	7.47	2.21
Treatment X Sex	.61	1	.61	.18
Age X Sex	19.93	3	6.64	1.97
Treatment X Age X Sex	3.95	3	1.32	.39
Error	2351.75	697	3.37	

Table 9

Unadjusted and Adjusted Means and Numbers

Discrimination

Category	Group	Number	Pretest Mean	Posttest Mean Unadjusted	Posttest Mean Adjusted
Treatment	MACOS	276	7.55	4.40	4.39
	Regular	438	7.86	4.34	4.34
Age	9	32	7.22	4.28	4.24
	10	204	7.65	4.31	4.30
	11	308	7.81	4.49	4.49
	12	170	7.81	4.21	4.21
Sex	Male	357	7.68	4.39	4.39
	Female	357	7.80	4.33	4.33
Total		714	4.36	4.36	7.74

Table 10

Analysis of Covariance

Caution

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Treatment	7.66	1	7.66	.99
Age	7.74	3	2.58	.33
Sex	7.81	1	7.81	1.01
Treatment X Age	3.35	3	1.12	.14
Treatment X Sex	.01	1	.01	.00
Age X Sex	16.83	3	5.61	.72
Treatment X Age X Sex	23.62	3	7.87	1.01
Error	5412.77	697	7.77	

Table 11

Unadjusted and Adjusted Means and Numbers

Caution

Category	Group	Number	Pretest Mean	Posttest Mean Unadjusted	Posttest Mean Adjusted
Treatment	MACOS	276	9.11	9.90	9.81
	Regular	438	10.35	9.94	9.99
Age	9	32	7.44	10.13	9.84
	10	204	9.45	10.10	10.05
	11	308	10.36	9.75	9.81
	12	170	9.94	9.98	9.99
Sex	Male	357	9.18	9.77	9.81
	Female	357	10.55	10.07	9.99
Total		714	9.87	9.92	9.92

Table 12

Analysis of Covariance

Overgeneralization

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio
Treatment	9.63	1	9.63	1.97
Age	99.38	3	33.13	6.78
Sex	3.88	1	3.88	.79
Treatment X Age	7.47	3	2.49	.51
Treatment X Sex	.01	1	.01	.00
Age X Sex	20.65	3	6.88	1.40
Treatment X Age X Sex	12.59	3	4.20	.86
Error	3406.22	697	4.89	

Table 13

Unadjusted and Adjusted Means and Numbers

Overgeneralization

Category	Group	Number	Pretest Mean	Posttest Mean Unadjusted	Posttest Mean Adjusted
Treatment	MACOS	276	5.44	4.40	4.32
	Regular	438	5.08	4.50	4.54
Age	9	32	7.34	6.31	5.59
	10	204	5.59	5.00	4.87
	11	308	4.99	3.97	4.05
	12	170	4.80	4.34	4.48
Sex	Male	357	5.44	4.56	4.49
	Female	357	5.08	4.36	4.43
Total		714	5.22	4.46	4.46

Table 14

Student Social Study Rating

	MACOS	Regular	t	Significance
Mean	2.45	2.42	.55	Non-significant
Standard Deviation	.99	1.07		
Number	471	643		

- - - - -

Question: Does participation in the MACOS Program affect the self-concept of students?

Evidence for formulating answers to this question was obtained from the attitude assessment instrument administered to all students in the study. In this instrument, students used a set of scales to rate each of the three concepts of themselves. These three concepts were: myself as a social studies student; myself as I think the teacher views me, and myself as a human being.

The results which are presented in Table 15 indicate that students in the MACOS Program have a more positive view of themselves as social studies students. The large t-ratio is an indication that the difference between the groups is highly reliable and is not a result of chance fluctuations. The participants in the MACOS Program also felt that the teacher viewed them more positively as social studies students. These results provide fairly strong evidence that the MACOS Program does make a difference with respect to these outcomes.

The analysis of the results from the rating of the third concept--myself as a human being, shows a small difference which could be due to random fluctuations in the data. There is no evidence to suggest that the MACOS program influenced this concept.

Table 15

Student Self-Concept Ratings

	MACOS	Regular	t	Significance
Myself as a Social Studies Student				
Mean	19.65	18.46	4.64	$P < .01$
Standard Deviation	4.43	4.70		
N	412	683		
Myself as I think the Teacher Views me				
Mean	18.92	17.81	3.83	$< .01$
Standard Deviation	4.97	5.55		
N	412	682		
Myself as a Human Being				
Mean	20.70	20.18	.218	N.S.
Standard Deviation	4.39	4.36		
N	412	682		

AN EVALUATION OF MAN: A COURSE OF STUDY

Question: What effect does the MACOS Program have on teachers' opinions of the social studies program and related topics?

Teacher opinions about instructional procedures and satisfaction with programs are important in judging the total worth and value of those programs. Curricula which may be well-conceived and logically consistent may fail completely if they over-burden or demean the instructional staff. Accordingly, teachers in both groups were asked to rate six aspects of the social studies program on a scale ranging from one, for "very low", to 5 for "very high". These six were: (1) amount of student interest in social studies; (2) amount of teacher preparation time; (3) emphasis on the value and the rights of man; (4) opportunities for intellectual development; (5) capitalization on individual differences; and (6) emphasis on transferable knowledge.

The analysis of the difference in mean ratings is given in Table 16. The results indicate that teachers in the MACOS program had a higher opinion of social studies than the teachers in the regular program. The only aspect of the program which did not produce a reliable difference was the amount of teacher preparation time. This would not seem to detract from the generally favorable attitude since it was not expected that it would take less preparation time for the new program.

There were very pronounced and reliable differences favoring the MACOS program on three categories. These were: the emphasis on the value and the rights of man; the opportunity for intellectual development; and the capitalization on individual differences. These findings suggest that the views of the developers of the program are consistent with the perceptions of the teachers. The results concerning the other two aspects (student interest and transfer of knowledge) indicate a difference favoring the MACOS Program though the reliability of the difference is less. The overall pattern, however, leaves little doubt that the teachers in the MACOS program have a high regard for that program and that it is higher than that of teachers in the regular program.

Two cautionary notes are in order. First, the reader should be reminded that this section deals with teachers' perceptions of the aspects of the program and not with those aspects themselves. Presumably there is a relationship between the two, but it should be recognized that they are not identical. However, the importance of evaluating teacher-opinion does not depend upon a relationship

Table 16

Teacher Attitude Toward the Social Studies Program

Question	Mean Rating Macos ($\bar{X}_1$)	Mean Rating Comparison ($\bar{X}_2$)	Difference ($\bar{X}_1 - \bar{X}_2$)	Significance of Difference* t	Significance of Difference* P
1. Student interest	3.81	3.25	.56	1.91	N.S.
2. Teacher preparation time	3.50	3.40	.10	.33	N.S.
3. Emphasis on value and rights of man	4.13	3.50	.63	2.65	$<.02$
4. Opportunities for intelectual development	4.50	3.40	1.10	3.07	$<.01$
5. Capitalization on individual differences	4.19	3.20	.99	2.66	$<.02$
6. Transfer of knowledge	3.63	3.05	.58	1.82	N.S.
(N)	(16)	(20)			

* Two tailed tests.

between perception and reality since opinion is, in itself, an important part of the total package of information necessary to evaluate the worth of a program. Certainly no program can succeed without the support of the teachers participating. The second caution concerns the possibility that new programs may be accepted more enthusiastically than a program which has become familiar. It is possible that there may be a novelty effect which could diminish with the passage of time. However, a program which is received with enthusiasm when it is instituted has a higher chance of success than one which is received with a negative or neutral attitude.

Question: Does the MACOS Program affect the self-concept of the participating teacher?

Teachers responded to an attitude assessment instrument similar to the one administered to the students. They used a set of scales to rate each of three concepts concerning themselves. Those concepts were: myself as a social studies teacher; myself as the students view me; and myself as a human being. Table 17 gives the results of the comparative analyses for these three concepts. These results show that there are no reliable differences between MACOS and comparison group teachers on any of the three self-concepts.

Table 17

Teachers' Self-Concept Ratings

Question	Mean Rating MACOS ($\overline{X}_1$)	Mean Rating Comparison ($\overline{X}_2$)	Difference ($\overline{X}_1 - \overline{X}_2$)	Significance of Difference t	Significance of Difference P
1. Myself as a social studies teacher	22.47	21.13	1.34	1.24	N.S.
2. Myself as the students view me	22.00	24.25	-2.25	.867	N.S.
3. Myself as a human being	23.33	22.58	.75	.912	N.S.
(N)	(15)	(24)			

AN EVALUATION OF MAN: A COURSE OF STUDY

SUMMARY

There were 19 formal comparisons between MACOS and the comparison group. The evidence indicated that seven of the differences were significant and all seven of these favored the MACOS group. Five of the seven were in the affective area and two were in the cognitive area. The remaining twelve comparisons did not favor either group.

A summary of the cognitive outcomes of the MACOS Program are: (1) There is strong evidence that the material specific to the MACOS program is being learned better by those in the program; (2) There is no evidence that either program is superior with respect to the more general skills involved in making appropriate inferences.

A summary of the results bearing on the third general question, "Are the attitudes of students and teachers affected by participation in the MACOS Program?", includes the following points. Positive effects were indicated in MACOS students' self-concepts as social studies students and in their perception of the way their teacher viewed them. There was no indication that students liked social studies any better or any worse than in the regular program, or that they viewed themselves more positively as human beings. There were no negative findings with regard to students.

Positive effects for teachers were in their perception of student interest, emphasis on the rights of man, opportunities for intellectual development, ability to capitalize on individual student differences, and in the attention given to the transfer of knowledge. There were no differences in the perception of the amount of teacher preparation time or in their measure of self-concept. Again, there were no negative indicators for the MACOS Program.

REFERENCES

Curriculum Helps II: A General Guide, Bellevue Public Schools, Bellevue, Washington, 1963, pps. 134, 161.

Educational Development Corporation, Curiosity, Competence, Community, Cambridge, Massachusetts, 1969, pps. 3-5.

Man: A Course of Study, Talks to Teachers, Cambridge, Massachusetts, Educational Development Corporation, 1968, p.4.

APPENDICES

Testing Instruments

TEACHER DIRECTIONS FOR ADMINISTERING MACOS

SOCIAL STUDIES TEST

SAY TO STUDENTS:

The testing period has begun. There should be no talking among you until after you have been dismissed.

We shall now pass out test materials. Do not open your booklet or turn it over until you are told to do so.

(Pass out test booklets, appropriate answer cards, and pencils.)

THEN SAY:

You will place your answers on the separate answer card. This card has your name, school, grade and test name printed on it. Be certain you have the correct answer card for each test, and be certain to read the directions that apply to the various parts of the test.

You must mark your answer card by filling in the same letter as the answer you have chosen.

You will be given about 50 minutes to finish, so work as fast as you can.

(To Teachers: There is no specific time limit; allow students sufficient time to finish the test.)

SAY:

Are there any questions? Answer any legitimate question.

SAY:

When I say 'Begin' read the instructions at the first of the test and start working.

MACOS SOCIAL STUDIES TEST

GRADES 4-6

Bellevue Public Schools
Bellevue, Washington
May, 1970

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
May, 1970

MACOS SOCIAL STUDIES TEST

True or False - Questions 1 through 31.

Read each statement carefully. If you think the statement is true, fill in the space marked A on your answer card. If you think the statement is false, fill in the space marked B on your answer cards.

1. An animal gathers information through its sense organs.
2. In many animal groups more babies die than live.
3. You can see and touch the signals that the brain sends to the body.
4. Male baboons protect their own children better than they protect other young baboons.
5. When a herring gull chick looks hungry, its parents feed it.
6. Baboons care for their young longer than herring gulls care for their young.
7. Information from the environment is necessary for an animal's survival.
8. Human beings are animals.
9. An animal's brain receives information and sends signals to the different parts of the body.
10. When we examine how something is built, we can tell a lot about how it is used.
11. A group of animals might decide to change the way it looks because its environment has changed.
12. Whenever a gull sees sticks, it wants to build a nest.
13. A brown rabbit has a better chance of surviving in a dark forest than a white rabbit.
14. Baboons are not bothered by the presence of human beings.

15. Every baboon in a troop can be identified by the way it looks and acts.

16. Baboons are never found where there are only a few trees and some low vegetation.

17. All adult baboons are so alike in appearance that we cannot tell them apart.

18. A scientist can't learn very much by watching only a small group of one type of animal.

19. To get the best observations, we should not let baboons become aware that they are being watched.

20. The baboon troops guard infants very closely and would not let a stranger get near one.

21. Troops of baboons are found in an area that provides food, water and some trees.

22. By studying one troop of baboons very closely a scientist is able to learn a great deal about all baboons.

Some of the paragraphs below give correct information about the way a scientist would work and think. Other paragraphs below are not at all true. If you think what it says is a true description of the way a scientist would work and think, fill in letter A on the answer card. If you think what it says does not describe the way a scientist would work and think, fill in the letter B on the answer card.

23. It was early morning in Africa and the scientist, Irven DeVore, started out to continue his study of baboons. As he drove along, he came to an area where he saw a few trees, some low vegetation, a grassy plain and a water hole. He decided this would be a good place to stop and watch for baboons.

24. He was looking for a new troop of baboons if he could find one, because he felt he couldn't learn much by watching the same baboons day after day.

25. "I can't tell one from the other anyway. One baboon is just like the next," he laughed to himself.

26. Dr. DeVore did not bring his field glasses with him because he knew baboons are never disturbed by human beings. Any troop would allow him to come very close.

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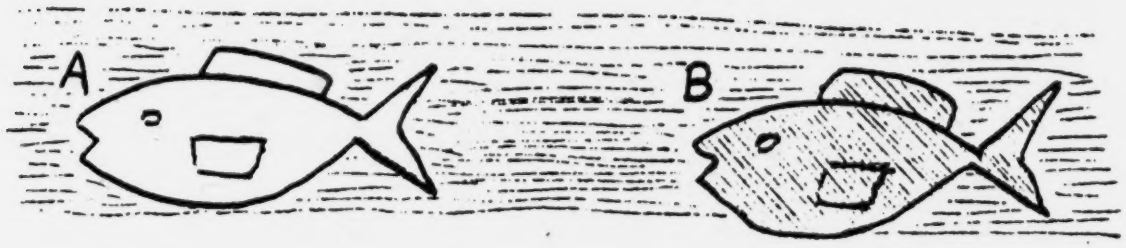
Questions 27 through 31 are based on the drawing below.



Both fish A and fish B live in the same river and both would make a very tasty meal for their sharp-eyed enemies. If you think a statement below is true, blacken the space marked A. If you think a statement below is false, blacken the space marked B.

27. Fish B is more likely to survive in this river than Fish A.

28. If Fish A breaks its fin, its offspring will have broken fins.

29. Fish A and Fish B may be two varieties of the same species of fish.

30. In 100 years, there are likely to be many more fish like "A" than "B" in the river.

31. If the food supply in the river changes, the fish will decide whether they want to eat the new food or move to another river.

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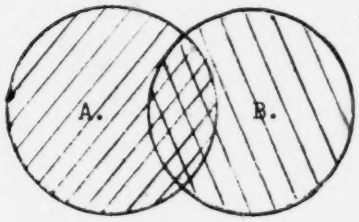
Questions 32 through 35



This diagram shows the areas in which two baboon troops live. Troop A lives in Section A. Troop B lives in Section B. Questions 32 through 35 below are about this diagram.

32. Which area do both troops share? (Choose one answer and fill in its letter on your answer card.

A.

B.

C.

D.

33. The overlapping area is one that: (Choose one answer and fill in its letter on your answer card.

A. none of the animals use.

B. both groups use.

34. Compared to the other two areas, the overlapping areas would NOT be: (Choose one answer and fill in its letter on the answer card.

A. richer in food and water.

B. the same.

C. poorer in food and water.

35. When two troops come together: (Choose one answer and fill in its letter on the answer card.

    A. the larger troop would share the food and water with the smaller troop.

    B. the troops might be nervous.

    C. young baboons of the two troops would play together.

- - - - - - - - - - - -

Questions 36 through 43

During their lifetime, animals learn to do many things. They are also able to do many other things without learning. Read each question below and fill in letter A if you think it is something that animals learn to do. Fill in letter B if you think it is something animals do not learn to do, but do naturally.

HERRING GULL

36. Find the edge of its territory.

37. Peck at the red spot on its parent's beak.

38. Crouch when in danger.

39. Recognize its chicks by spots on the head.

BABOON

40. Know the alarm calls of other animals.

41. Cling to its mother's chest.

42. Make sounds.

43. Give special calls at special times.

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Questions 44 through 53

On the list below are some things that only human beings do, some things that only human beings and chimpanzees do, and some things that human beings, chimpanzees and baboons do.

If the statement below describes something that only a human being does, make the letter A on your answer card. If the statement below describes something that only human beings and chimpanzees do, mark the letter B on your answer card. If the statement below describes something that human beings, chimpanzees and baboons all do, mark the letter C on your answer card.

A if only human beings do it.
B if only human beings and chimpanzees do it.
C if human beings, chimpanzees and baboons do it.

44. May do things together with individuals they do not know well.

45. Make tools.

46. Mothers care for their young for at least 6 months.

47. Eat meat and fruit.

48. The young recognize their father and mother.

49. May spend some of the day alone.

50. Enjoy playing.

51. Tell stories to their young.

52. Males hunt and females gather food.

53. Greet others with kisses and hugs.

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Questions 54 through 56

Each of the questions in this section is followed by some suggested answers. You are to decide which one of these answers you think is best. Indicate your answer by filling in that letter on the answer card.

54. Baboon troops never leave their home range. This is because:

A. They don't want to leave sick or old baboons too far behind.

B. No one is sure of the reason.

C. They don't want other animals to get the things they have built up.

D. They are able to survive only in that special area.

55. A salmon is able to find its way back to its birthplace because:

A. Some member of the group has made the trip before.

B. The parents tell the way to the young.

C. Each salmon remembers the smell of its river.

D. Salmon learn to do this by trial and error.

56. The group life of a baboon troop allows:

A. An adult to share meat with an infant.

B. The males to keep peace in the troop.

C. The males to hunt while the females gather food.

D. Other females to help a mother with her newborn infant.

E. The males to protect the females and babies.

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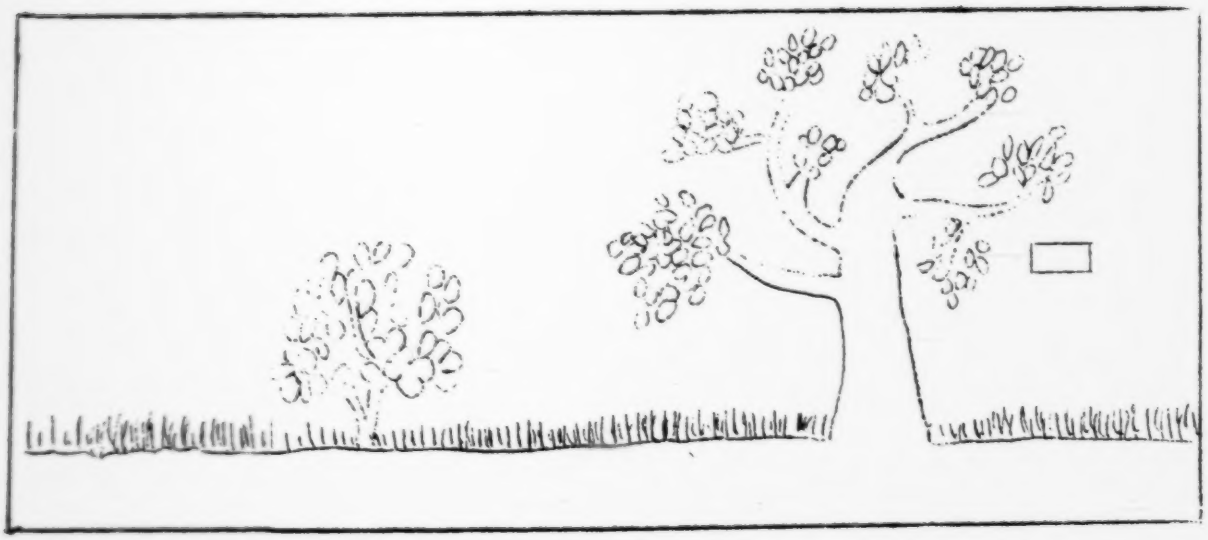
(Continued on the next page.)

Questions 57 and 58



57. Look at the pictures. Then fill in the letter on the answer card which shows an animal you think would NOT be able to live in the place shown above.

58. If all animals like those in picture D died, what would happen to animals like those in picture C?

A. Nothing would happen.
B. The group would increase in number at first.
C. They would live happily.
D. They would have a bigger food supply.

Questions 59 through 68

Actions, sounds and words are all ways of communicating. There are many things that only human beings can express. There are also many things that human beings and many animals express. Read each statement below. Blacken in letter A if the statement is something that only human beings express. Blacken in letter B if the statement is something that human beings and many animals express.

59. Danger.

60. Last summer my family went to the country.

61. Tomorrow we will have to get more food.

62. In China it is night-time now.

63. I am hungry.

64. The big green monster climbed slowly out of the lake.

65. I feel so sad.

66. Do you know where my friends are?

67. If I don't find a shelter, I will have no place to sleep.

68. I am lost.

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Questions 69 through 76

In Column 1 are some words you have read and used during this course. In Column 2 are a number of definitions for each word. Select the best definition for each word and fill in that letter on the answer card.

	Column 1	Column 2
69.	juvenile	A. The young of any animal B. A baby gorilla C. A delinquent or bad teenager D. A young human or other animal
70.	structure	A. A special way in which something is used. B. One's surroundings C. The special way something is built D. An obstruction

	Column I	Column 2
71.	reproduction	A. The pattern of birth, having babies and dying B. A mammal and a primate C. Giving birth to young D. A delinquent or bad teenager
72.	life cycle	A. The ways an animal acts B. A hunter of other animals C. The special way something is built D. The pattern of birth, having babies and dying E. One's surroundings
73.	environment	A. The opposite of animal B. One's surroundings C. Jump to one side D. Good or bad manners
74.	predator	A. A baby gorilla B. A hunter of other animals C. A mammal and a primate D. The opposite of an animal
75.	behavior	A. The ways an animal acts B. A hunter of other animals C. The opposite of animal D. A mammal and a primate E. Good or bad manners
76.	innate	A. A mammal and a primate B. One's surroundings C. A special way in which something is used D. Not learned E. Jump to one side

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Bellevue Public Schools
Bellevue, Washington

SOCIAL STUDIES INFERENCE TEST
Grades 4-6

INSTRUCTIONS TO TEACHER:

Read to students:

This booklet has a number of pages. Turn to page "1". This page is entitled: DATA SHEET. Please fill in your first name, your middle inititial and on the third line print your last name. Now put in your age. First put down how old you are in "years". Now you need to find how many months beyond that number of years. To find this use the table below. Find the column that shows your month of birth and then go down it until you arrive at the line that gives your years in age. There are two numbers separated by a dash. The first is your years old and the second is your months old. Now put the last number up in the data sheet where it belongs. Next check whether you are a boy or girl. Now put down my name. (Put this on the board for students.) Next put in the name of our school. (Put this on the board for students.)

Pay no attention to the scores.

Now to continue, turn to page two. You will see this story below has some sentences under it. I will read the story aloud to you and you follow along silently. Then I will read a sentence below and you are to think about how to answer this sentence. Place a check on the line under the best answer. If you think the sentence is PROBABLY TRUE, place a check under PROBABLY TRUE. If you think the sentence is PROBABLY FALSE, place a check under PROBABLY FALSE. If you CAN'T TELL whether it is probably true, or probably false, place a check under CAN'T TELL.

Now I am going to read.

Example:

"Mr. Jones was a farmer in the midwest. When he heard about the discovery of gold in California he left his family and went to California." Now read silently with me the first sentence below.

1. Mr. Jones went with his family to California. Is this sentence PROBABLY TRUE, PROBABLY FALSE, or is it that you CAN'T TELL whether it is probably true or probably false? Place a check under the answer you feel you should check.

All-right now - what did you check? Right you are. The story says that Mr. Jones left his family and went to California, so you should have checked PROBABLY FALSE. Now let us look at sentence number two.

2. Mr. Jones went to California because he did not like the place in which he lived. Is this PROBABLY TRUE, PROBABLY FALSE, or is it that you CAN'T TELL whether it is probably true or probably false? Place a check under the answer you feel you should check.

This is a harder one to figure out, isn't it? One could have checked CAN'T TELL and could have been right, for one really can't tell from the story whether he did or did not like his place in which he lived.

Then again, one could have checked PROBABLY TRUE because if he had really liked his place in which he lived, he would have stayed and really made it into an even better place or some such reasoning.

Then again we could have made the third choice. We could have marked PROBABLY FALSE. We could have reasoned that he really did like his place but that he was so poor that he had to go to California to make some money in the gold rush.

Before you turn the page and we continue to read these stories, please remember that we want you to put down WHAT YOU THINK and not what your neighbor next to you thinks. You will not receive a grade for this test. We are not concerned with how well you think about a problem as much as HOW YOU THINK ABOUT A PROBLEM.

(Note to teacher: Have students turn to page 3 and begin the test. Read all stories aloud and the sentences. Give students all the time they reasonably need to check an answer. Total test time will probably be less than 50 minutes.)

(When the test is completed, collect the test booklets. These materials should be held until all phases of testing have been completed. When all testing is completed, pack and send all test materials at one time to the District Testing Office, Room 129, Educational Service Center.)

SOCIAL STUDIES INFERENCE TEST

GRADES 4-6

Bellevue Public Schools
Bellevue, Washington
October 7, 1969

DATA SHEET

Student's Name: (First) _____

(Middle Initial) _____

(Last Name) _____

Student's Age: (Years Old) _____

(Months Old) _____

Sex: (Check One) Boy _____

Girl _____

Teacher's Name: _____

School: _____

SCORES: (Students should not write here.)

I Score: _____

D Score: _____

C Score: _____

OG Score: _____

Note to Students:

If you need to compute your age, use the chart below. Find the year you were born and look over to the month you were born and find two numbers. The first number tells how many years old you are and the second number tells how many extra months beyond that you are old. If you do not remember the year you were born, look under the month you were born and find the column that fits the number of years old you are and this will tell you your age to the month.

YEAR BORN	MONTH BORN											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1957	12-9	12-8	12-7	12-6	12-5	12-4	12-3	12-2	12-1	12-0	11-11	11-10
1958	11-9	11-8	11-7	11-6	11-5	11-4	11-3	11-2	11-1	11-0	10-11	10-10
1959	10-9	10-8	10-7	10-6	10-5	10-4	10-3	10-2	10-1	10-0	9-11	9-10
1960	9-9	9-8	9-7	9-6	9-5	9-4	9-3	9-2	9-1	9-0	8-11	8-10
1961	8-9	8-8	8-7	8-6	8-5	8-4	8-3	8-2	8-1	8-0	7-11	7-10

EXAMPLE:

Mr. Jones was a farmer in the midwest. When he heard about the discovery of gold in California, he left his family and went to California

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
1. Mr. Jones went with his family to California.	_____	_____	_____
2. Mr. Jones went to California because he did not like the place in which he lived.	_____	_____	_____

SOCIAL STUDIES INFERENCE TEST

People X and People Y

This is about two groups of people, People X and People Y.

People X hunt and fish to get food. They often have to move because the herds of animals move from place to place.

Most of People Y are farmers. However, many of them make simple tools. The toolmakers trade the tools to the farmers in exchange for food.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
1. People Y are more likely to build schools for their children than People X.	_____	_____	_____
2. People X and People Y live in Africa.	_____	_____	_____
3. People Y have machinery.	_____	_____	_____

- -

Mecano and Growland

Two countries, Mecano and Growland, are next to each other. The people of Mecano have developed modern industry. They are well educated. There are colleges that train doctors, lawyers, engineers, and business men. The people who live in Growland lead more simple lives. Mostly they work on their farms. Some of them make baskets and jewelry. Their goods and farm products are traded to the Mecanos in exchange for manufactured items. There is a valley near Mecano and Growland. People from Mecano and Growland are going to live together in this valley.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
4. The Growlanders in the valley will become more like the Mecanos, but the Mecanos will not become like the Growlanders.	_____	_____	_____

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
5. The Mecanos and the Growlanders speak the same language.	____	____	____
6. The Mecanos and the Growlanders live together in the valley because all of their land has been used up.	____	____	____

- -

Mr. Jones Grocery Store

Mr. Jones owns a grocery store. Often, in the last few weeks, he has not had enough bread for his customers. It has been an unusually dry season in the area and the wheat crop has not done well this year.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
7. The delivery trucks have broken down so Mr. Jones is unable to get bread.	____	____	____
8. There was as much rainfall this year as last year.	____	____	____
9. The bakers have been very busy this year.	____	____	____
10. Mr. Jones will start baking his own bread.	____	____	____
11. They are using the wheat to make other things this year rather than for making bread.	____	____	____
12. Mr. Jones will close his store until more bread is baked.	____	____	____
13. The wheat crop was of poor quality.	____	____	____
14. The price of bread is higher this year than last year.	____	____	____
15. More wheat will be harvested this year than last year.	____	____	____

- -

People A and People B

People A: The vote had been very close. A number of the representatives did not like the outcome. They decided to go back to their districts and ask for support. This was the fourth vote on which the President had been defeated.

People B: The Chief asked his council for advice and then he told his people what he had decided. The people listened to their Chief. When he was through talking, they cheered.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
16. People A and People B have the same system of government.	____	____	____
17. The representatives of People A are selected by the President.	____	____	____
18. People A will re-elect the representatives who voted for the bills the President supported.	____	____	____
19. The Chief of People B knew his people would do what he wanted them to do.	____	____	____
20. Most of the representatives of People A agreed on the issue that they had just voted on.	____	____	____
21. People B vote for members of the council.	____	____	____

- -

Mr. Edwards' Farm

Mr. Edwards' farm was in the valley. He had just finished planting his seeds. He could see the snow on the mountains. He hoped the snows would not melt too fast. The fire last summer burned most of the trees on the mountainside.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
22. More water will flow into the valley than last year.	____	____	____

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
23. Mr. Edwards' seeds will die of frost.	_____	_____	_____
24. Topsoil from the mountain will be washed down into the valley.	_____	_____	_____
25. Mr. Edwards planted his seeds after the snow fell.	_____	_____	_____
26. Mr. Edwards' farm is on the mountainside.	_____	_____	_____

- -

Seal Harbor

The city of Seal Harbor is a rapdily growing transportation center. It has been served by planes, railroads, and ocean-going ships. It has just improved the airport and extended the runways so it can serve the largest and fastest jet aircraft.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
27. More business and new businesses will be attracted to Seal Harbor.	_____	_____	_____
28. Propeller planes will not be used very much at the Seal Harbor airport.	_____	_____	_____
29. Trade with other cities will be increased.	_____	_____	_____
30. Salaries in Seal Harbor will increase.	_____	_____	_____

- -

Henry and Taro

Henry's father is a farmer. Henry is twelve years old. During the week Henry goes to school and he wants to become a teacher. On weekends he works on the farm and has learned to drive a tractor. His father is happy that Henry wants to become a teacher.

Taro is also twelve years old. Taro's father is

a hunter. Taro's grandfather also was a hunter. Taro is learning to hunt from his father. Many times on the way home from hunting Taro stops to watch the fisherman. One day Taro asked his father, "Can I become a fisherman?" Taro's father said, "No, because I am a hunter."

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
31. Henry's father wants Henry to become a farmer.	____	____	____
32. Henry's grandfather was a farmer.	____	____	____
33. Taro will leave the tribe and become a fisherman.	____	____	____
34. Taro's sons will become hunters.	____	____	____

- -

The Picker

Three months after the Picker had been invented, more flander had been picked than for all of the year before. All of the machines at the textile mills were working night and day. Six months after the Picker had been put to use, the mills realized that they could not process the amount of flander sent to them.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
35. Flander is used in making cloth.	____	____	____
36. The mills will change the way they process flander.	____	____	____
37. Less flander will be grown next year.	____	____	____

- -

Pambo and Tom

Pambo is twelve years old. There are no schools where Pambo lives. He does not read or write. He fishes with his father every day. Pambo is learning to cut bark from trees to make a canoe. His father teaches him many things and is proud of how well Pambo can do them.

Tom is also twelve years old. He works hard at school and gets good grades. When he comes home from school, he reads his books so that he will learn things that will help him.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
38. Tom is smarter than Pambo.	____	____	____
39. Pambo's father can read and write.	____	____	____
40. Pambo is having trouble learning how to make canoes.	____	____	____
41. Tom reads every day because he is behind in his school work.	____	____	____
42. If Pambo and his family moved to the city where Tom lives, Pambo will go fishing every day with his father.	____	____	____

- -

Mr. Rand's Land

Thirty years ago Mr. Rand bought a thousand acres of farmland. Many new industries have developed in the city nearby. About ten years ago Mr. Rand sold half his farmland to people who build homes. Last year Mr. Rand sold two hundred acres more and many homes already had been built on this land.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
43. The people who bought the houses are coming to work on Mr. Rand's farm.	____	____	____
44. Mr. Rand will sell the rest of his farmland to the people building homes.	____	____	____

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
45. Mr. Rand still owns half of the farmland that he bought thirty years ago.	____	____	____
46. Mr. Rand sold his farmland for more money than he paid for it.	____	____	____
47. They are building houses for the people coming to work in the industries.	____	____	____
48. The people who had worked on Mr. Rand's farm went to work for industry.	____	____	____
49. The people who bought Mr. Rand's farmland were farmers.	____	____	____

- -

Pacific Island

An island has just been discovered in the Pacific Ocean. The natives of this island cannot read or write. Most of them are farmers. Some are fishermen who get fish from the ocean. Several food companies in California want to get the fish from the ocean around the island. These companies will send fishing boats from California and build a cannery on the island. Many people will be needed to work in the cannery.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
50. Most of the islanders are fishermen.	____	____	____
51. The islanders will build fishing boats for the people who own the cannery.	____	____	____
52. The islanders will become wealthy from the fishing industry.	____	____	____
53. The natives will be happier because of the cannery.	____	____	____

- -

Mr. Harvey's Speech

Mr. Harvey spoke to the Founders Club last night. Here is part of what he said:

> "In the early days of our country, many people settled here from other countries. They came here to establish a way of life that was better than they had in their own countries. They helped build a strong America because they believed in America. Today the foreigners who come here do not seem to appreciate the freedom and opportunity America offers them. We ought to be more careful about who we let in and require an oath of these foreigners before we accept them."

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
54. Mr. Harvey feels that people who take an oath can be trusted.	____	____	____
55. Mr. Harvey had studied a great deal about America.	____	____	____
56. Mr. Harvey is running for political office.	____	____	____

- -

The Koskis

Mr. and Mrs. Koski remembered the day they docked in New York. They had been married only two months when they arrived from Poland. America was a strange land to them. Mr. Koski worked hard for many years so his children could go to school. Ed, the oldest child, is now in college and will one day become a lawyer.

	PROBABLY TRUE	CAN'T TELL	PROBABLY FALSE
57. The Koskis came to America last year.	____	____	____
58. Ed is proud of his father.	____	____	____
59. The Koskis will return to Poland to live.	____	____	____

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
May 1970

SEMANTIC DIFFERENTIAL
TEACHER FORM

SEMANTIC DIFFERENTIAL

DIRECTIONS FOR ADMINISTERING:

This is a very simple and speedy test to take. Please note that you are to put an "X" or a check mark on one of the spaces between each of the polarities for each concept listed.

Place the mark where you think you would rate yourself at this time. Be honest in your appraisal. This semantic differential is part of a district research study of the social studies program and your answer will be treated confidentially. Any test results supplied by you or your pupils throughout the study will remain anonymous.

Name: _____

School: _____

- -

(Cut along this line)

Number: _____

CONCEPT OF MYSELF AS A SOCIAL STUDIES TEACHER

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

CONCEPT OF HOW I FEEL MY STUDENTS VIEW ME AS A TEACHER

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

CONCEPT OF MYSELF AS A HUMAN BEING

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
October 1969

SEMANTIC DIFFERENTIAL
Student Form

TEACHER DIRECTIONS FOR ADMINISTERING

(READ TO STUDENTS):

Please turn to page "1". There are some blanks at the top of the page for you to fill in. Your answers will be combined with those from many other boys and girls and not identified with you as an individual person. However, we do need to have you fill in the blanks with the name of your teacher, the name of your school, your age, and whether you are a boy or girl. First put in the name of your teacher (spell this out on the board). Your school (spell out on board). Now put in your age. First, put down how old you are in "years". Next find the months beyond that number of years. To find this, use the table below. Find the column that shows the month you were born and then go down this column until you come to the line that gives your years in age. There are two numbers separated by a dash. The first is your years old and second is your months old. Now put down the number of months in the blank for "months old". Next check whether you are a boy or girl. Pause:

Now please turn to page "2". This page is fast and easy to do. Please note that you are to put an "X" on one of the spaces between the two words on each line. Place the mark where you think you would rate yourself at this time. For example, the first part is about "How I see myself as a social studies student". If you think you are an awful social studies student, put an "X" on the line right next to awful. If you think you are a nice social studies student, put an "X" on the line right next to "nice". But if you see yourself as being somewhere in between nice and awful, put the "X" on one of the lines in between. The closer your "X" is to awful, the worse you think you are; the closer your "X" is to nice, the nicer you think you are as a social studies student. Do the same for the lines between each of the other two words. The closer your "X" is to either word, the more you think this end word is true. If you have trouble reading a word, please raise your hand. (Give students all the time they [reasonably] need to answer these items.

(Collect these forms and hold them until all other phases of testing have been completed; then forward this test to the District Testing Office, along with the other completed test materials.)

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
October 1969

SEMANTIC DIFFERENTIAL
Student Form

Teacher's Name _____

School _____

Student's Age: (Years Old) _____

(Months Old) _____

Sex: (Check One) Boy _____

Girl _____

To compute your age, use the chart below. First put down how old you are in "years". Next find the months beyond that number of years. Find the column that shows the month you were born and then go down this column until you come to the line that gives your years in age. There are two numbers separated by a dash. The first is your years old and the second is your months old. Now put down the number of months in the blank for "months old".

YEAR BORN	MONTH BORN											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1957	12-9	12-8	12-7	12-6	12-5	12-4	12-3	12-2	12-1	12-0	11-11	11-10
1958	11-9	11-8	11-7	11-6	11-5	11-4	11-3	11-2	11-1	11-0	10-11	10-10
1959	10-9	10-8	10-7	10-6	10-5	10-4	10-3	10-2	10-1	10-0	9-11	9-10
1960	9-9	9-8	9-7	9-6	9-5	9-4	9-3	9-2	9-1	9-0	8-11	8-10
1961	8-9	8-8	8-7	8-6	8-5	8-4	8-3	8-2	8-1	8-0	7-11	7-10

HOW I SEE MYSELF AS A SOCIAL STUDIES STUDENT

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

HOW I SEE MYSELF AS A HUMAN BEING

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

HOW I THINK MY TEACHER SEES ME AS A STUDENT

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
May 1970

SEMANTIC DIFFERENTIAL
Student Form

Teacher's Name _____

School _____ Grade _____

HOW I SEE MYSELF AS A SOCIAL STUDIES STUDENT

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

HOW I SEE MYSELF AS A HUMAN BEING

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

HOW I THINK MY TEACHER SEES ME AS A STUDENT

Nice	____	____	____	____	____	____	____	Awful
Sour	____	____	____	____	____	____	____	Sweet
Bad	____	____	____	____	____	____	____	Good
Deep	____	____	____	____	____	____	____	Shallow

Grade(s) taught _____

School _____

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
May 1970

TEACHERS' ATTITUDES TOWARD THE SOCIAL STUDIES PROGRAM

1. Amount of Student Interest 1 2 3 4 5
   Low Average High

2. Amount of teacher preparation time required per day as compared to other content subjects 1 2 3 4 5
   Low Average High

3. Amount of emphasis in the curriculum on understanding and appreciating the values and rights of man in relationship to democratic ideals: 1 2 3 4 5
   Low Average High

4. Extent to which the curriculum provides opportunities for the students to develop their intellectual capabilities 1 2 3 4 5
   Low Average High

5. Extent to which the program allows for variety of activities and materials designed to capitalize on individual differences . 1 2 3 4 5
   Low Average High

6. Extent to which students transfer their knowledge of the social studies to activities outside of school 1 2 3 4 5
   Low Average High

BELLEVUE PUBLIC SCHOOLS
Bellevue, Washington
May 1970

PLEASE WRITE YOUR SOCIAL STUDIES TEACHER'S NAME, YOUR SCHOOL AND GRADE IN THE BLANKS. THEN FOLLOW THE DIRECTIONS BELOW.

Teacher's Name _____

School _____ Grade _____

Student Ratings

Directions: Look through the list of subjects below and put a 1 next to the one you like the best. Put a 2 next to the subject you like next best, and a 3 for the next. The subject you like least of all should be given the number 4. The subjects are listed alphabetically.

_____ Arithmetic-Mathematics

_____ English-Language Arts

_____ Science

_____ Social Studies